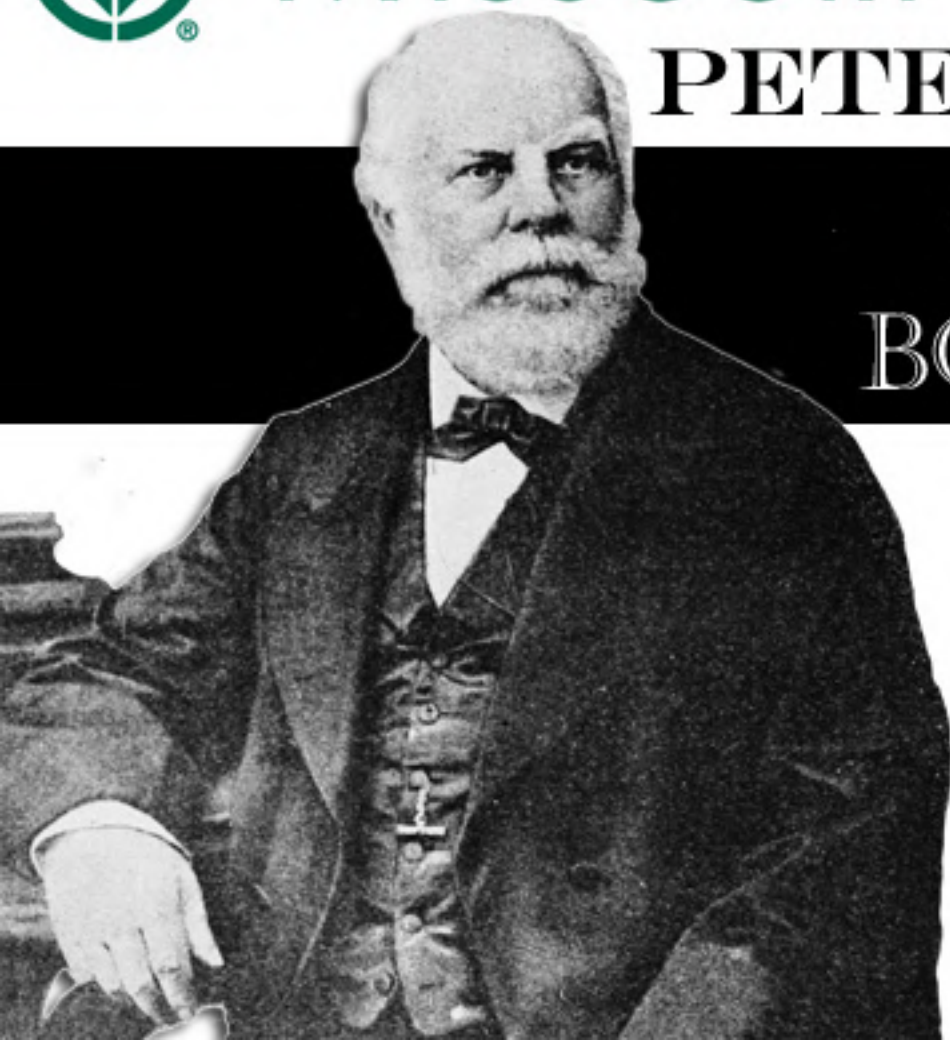


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BOTANICAL NOTEBOOKS

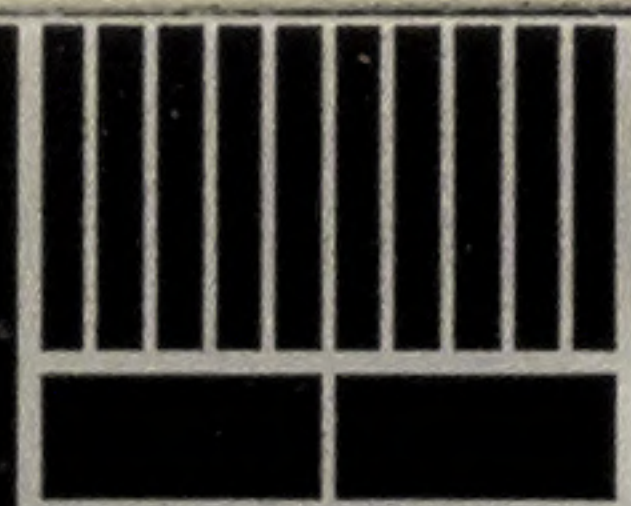


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Letter of the
very botanical
Club II. 9 p. 34
Sept 1871

61. Note from Dr. Engelmann.—I have now had Prof. Wood's specimen of *Opuntia* from Westchester Co., one from New Jersey sent by Mr. Meehan, and a third from New England, probably Massachusetts, furnished by Prof. Gray, side by side in cultivation with our Missouri and Illinois *O. Rafinesquii*. It is certainly less spiny, and sometimes the flower is smaller than in our plant, but the deep green colour, the long spreading leaves, and the bright brown bristles, especially on the older joints, on which they increase in number and length to considerable bunches, are characteristic of the plant. With them I have growing the true *O. vulgaris* sent by Dr. Schott from the banks of the Potomac and probably not found north of Chesapeake Bay, with thicker light green joints, shorter, thicker, more adpressed leaves, and small bunches of short thin greenish yellow bristles. This is the plant which is cultivated in Europe under that name and has become naturalized in Northern Italy and which I have described and figured as such in Vol. 4, Pacif. R. Reports.



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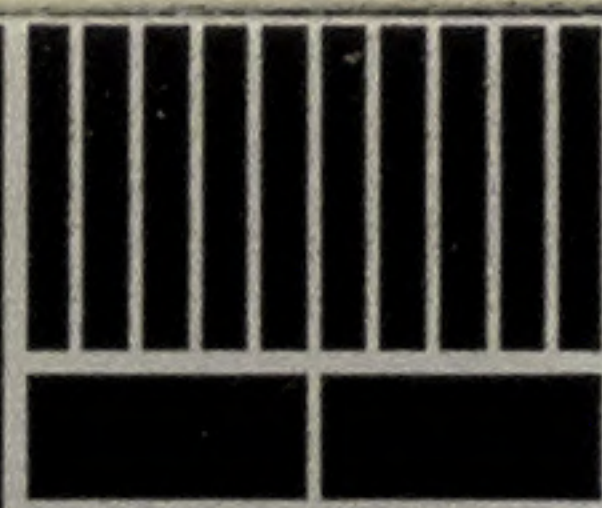


MISSOURI
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GARDEN

2593

The vasculum should be oval-cylindrical in shape, at least eighteen inches long, and with a door opening on one side. A small additional compartment opening at one end will be convenient as a lunch box, and also to contain water plants, nuts, acorns, land shells, or other objects of interest met with on the tramp. The portfolio should measure eighteen by twelve inches. It is best made simply of two stout sheets of pasteboard, not connected by a back or hinges, and covered with "enamelled cloth" to keep out moisture. To tie them together, I prefer a stout cord, or fishing-line, to india rubber bands or straps.

The young botanist soon learns that the collection of specimens does not consist in tearing off a flower with a portion of the stem and a few upper leaves. He finds it impossible to identify his species in many cases, without having both the sterile and fertile flowers when the plant is monœcious or dioecious, also the mature fruit, the root leaves, and even the root, all of which are component parts of the complete plant and often essential to its recognition. In many cases the fruit may be obtained from preserved specimens.



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Opuntia missouriensis

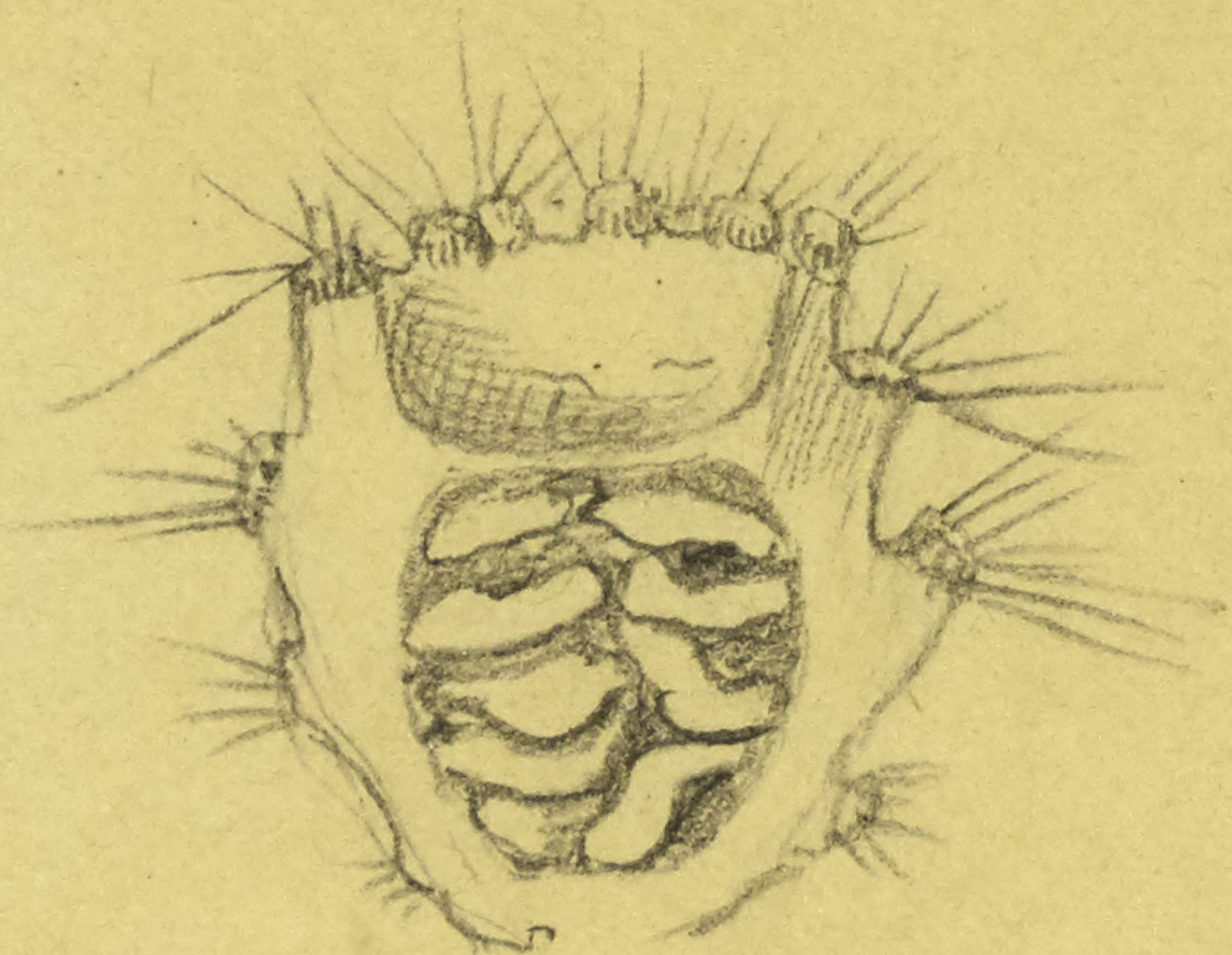
Colorado

July 1871. E. L. Greene

berries green yet, oval, not quite 1 inch long,
contracted about the deep umbilical scar,
about 50 prominent puberilli, with conspicuous white
tomentum, and whitish spines & bristles.

puberilli and areolae $\frac{11}{18}$ arranged

7 & 11 spirals most prominent
more rarely $\frac{13}{21}$ seen



fleshy green walls of unripe
fruit shrivel up and dry at
maturity to a thin brittle shell



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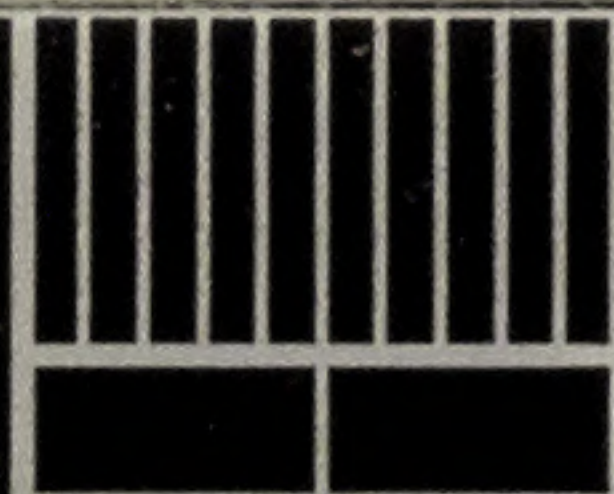
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Leitch & Corlies

DRUGGISTS

South West
Corner Fifth
and Market
Streets.

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GEORGE ENGELMANN PAPERS



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Hort Botan Rome Febr 6 1869

Opuntia spinosissima:

branches somewhat in one plane

erect (trained, and in the greenhouse) stem cylindric. habit of the plant that of *O. Brasilensis*, with linear, very long joints, which gradually become cylindric stems and branches — other joints shorter, oblong-linear; 2-3

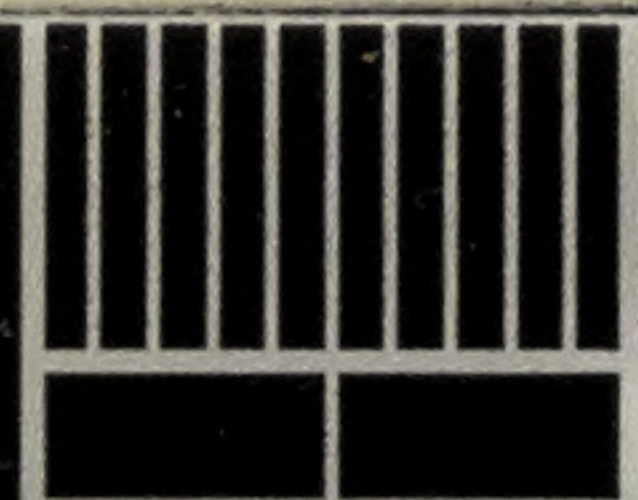
plant 4-5 feet high
trunk about 3 inches diameter, covered with spines — its areolae 1 inch apart, bearing 5-8 larger ($1-1\frac{1}{2}-2$ " and 10-15 shorter ($\frac{1}{2}-1$ " acicular pale ashy spines and long bristles —

joints very thin, linear oblong 2-3 inches wide 8-12-20 joints long —

areolae $\frac{3}{4}$ inches apart, oblong, with 3-5 acicular yellowish whitish spines 1-2 inches long and long yellow bristles

Labourt p. 452

" foliodes très-couverts rouges



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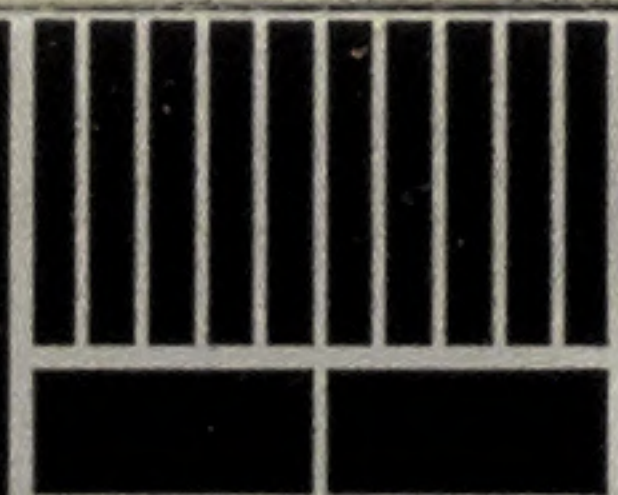
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Opuntia "ferox"

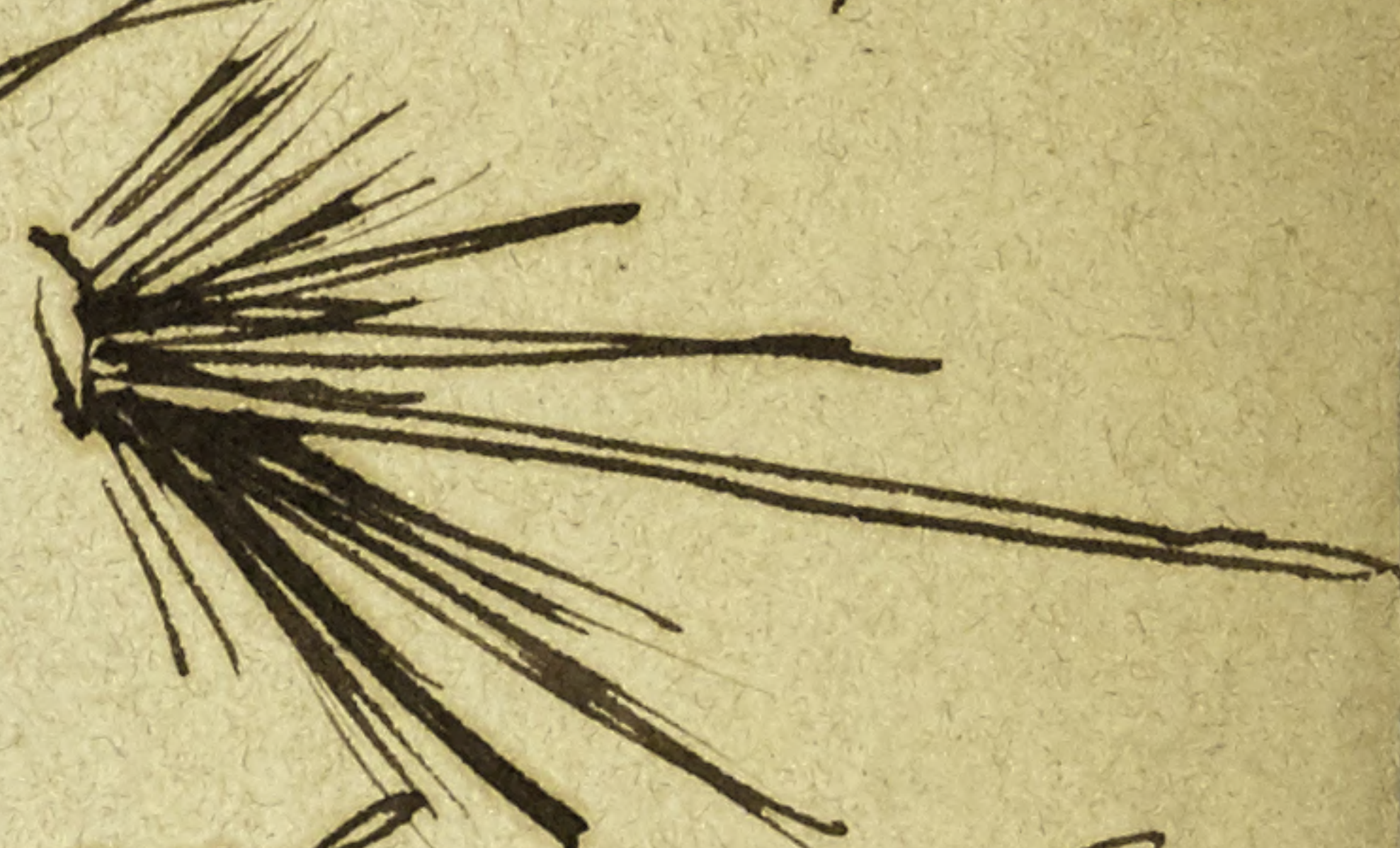
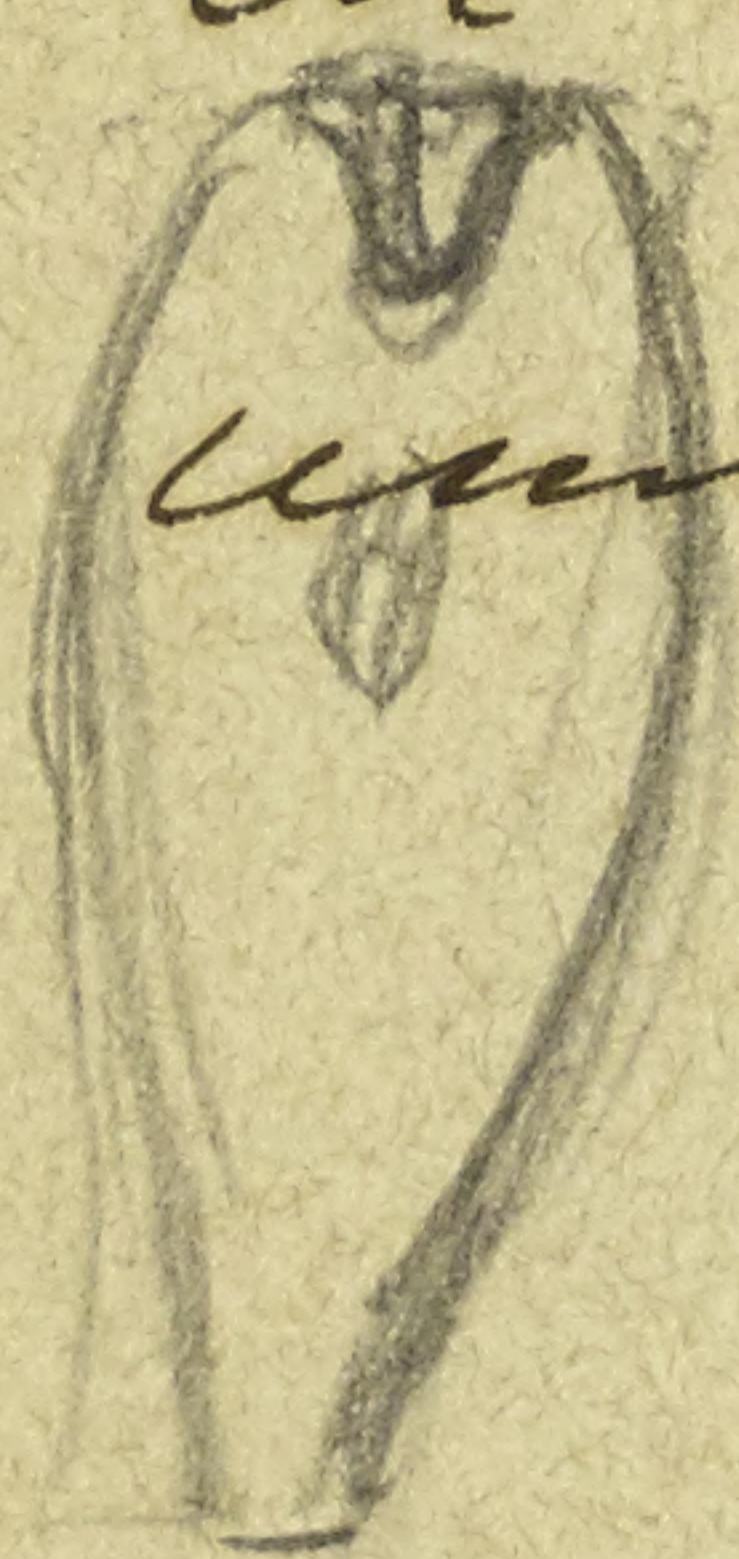
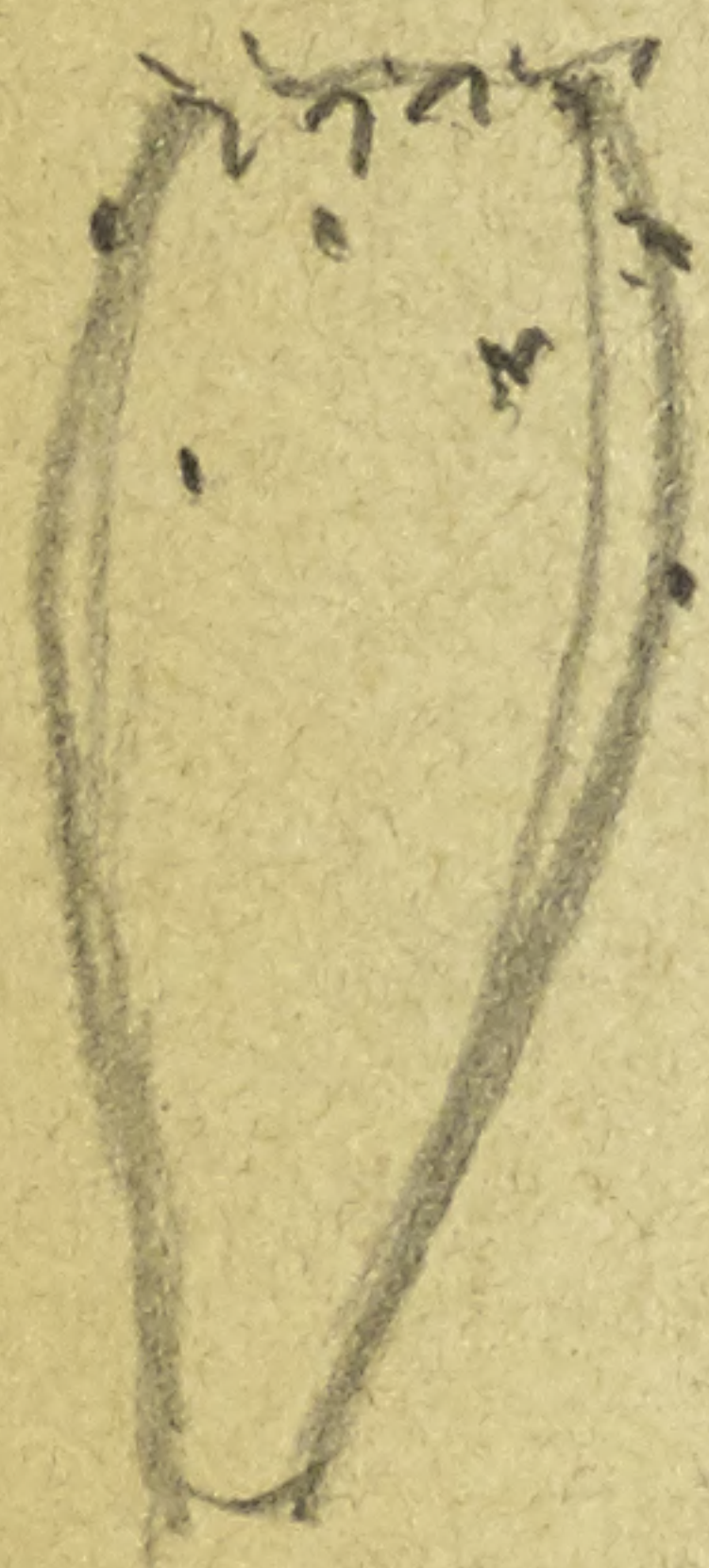
Villa Floridiana, Vomero,
Napoli

Dec 30 1868.

5 feet high, joints 3-4 inches long, 2" wide;
areolae all spiny, ~~appearing~~ bristly -
spines 3-5, $\frac{1}{2}$ -1 inch long, yellow.

Trunk $\frac{1}{2}$ - 2 inches diameter, very spiny with old
areolae very large, beech with long
bristles and 6-7 stout & long spines.

berry (very unripe) small, with 13-15 areolae only
on upper part, small and bristly, $\frac{5}{13}$ order.
umbilicus (now) very deep; 2 pits examined
sterile



whole plant resembles much *O. polyantha*.



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Opuntia *leaves*
1881
June 2nd
July 2nd
Aug 2nd
Sept 2nd
Oct 2nd
Nov 2nd
Dec 2nd

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Opuntia *leaves*
1881
June 2nd
July 2nd
Aug 2nd
Sept 2nd
Oct 2nd
Nov 2nd
Dec 2nd



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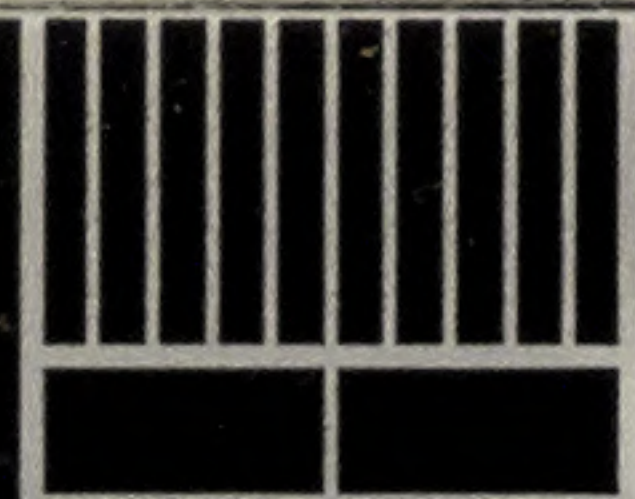


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"Opuntia nigricans" is my *O. monacantha*
"*O. confusa*" = *O. leucotricha*

Hort bot Roman

Febr 6. 1869



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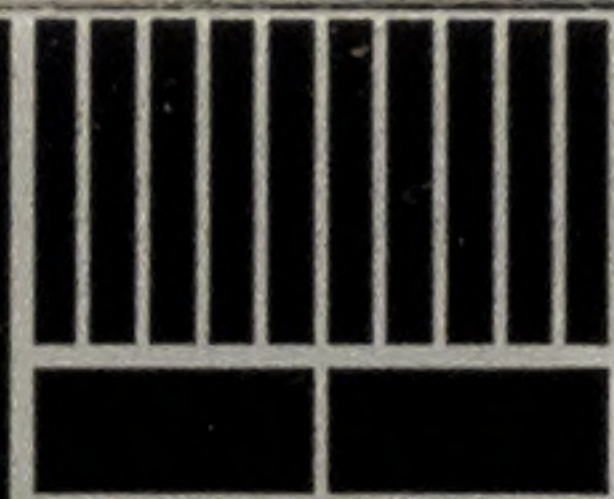
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" " " "
Op. Angolia x O. italica

Hort B. Nap $\frac{13}{12}$ 1868
appear identical.

Op. "tuberculata" with spines

"laureolata" without spines

seem identical — and
both similar to O. vulgaris
only joints a little more elongate

H. B. Nap $\frac{13}{12}$ 68



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